

REMARKS

Claims 1-23 are pending in the application. Claims 16-23 are withdrawn from consideration. Claims 1-15 are currently under consideration.

The abstract of the disclosure stands objected to as being directed to a method of removing deposited material by carbon dioxide rather than cleaning with supercritical fluid of C_3H_8 , C_2H_6 , or CH_4 . Correction has been made as required.

Claims 1-4, 6-7 and 9-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by McCullough (U.S. Patent No. 5,908,510). The Examiner is reminded by direction to MPEP § 2131 that anticipation requires each and every element of a claim to be disclosed in a single prior art reference. Claims 1-4, 6-7 and 9-15 are allowable over McCullough for at least the reason that McCullough fails to disclose each and every element in any of those claims.

Claim 1 recites providing a processing chamber having a residue material over at least one internal chamber surface, providing a supercritical fluid in the processing chamber and contacting the residue material with the supercritical fluid, the contacting removing at least some of the residue material from over the at least one internal chamber surface. McCullough discloses specific conditions for utilization of a supercritical fluid for RIE residue removal from a "precision surface". Nowhere does McCullough disclose removal using supercritical fluid from any surfaces other than a "precision surface". At page 5 of the present Action the Examiner indicates that "the supercritical fluid inherently remove any residue on the walls or the substrate support". However, the reference itself and the Examiner fail to provide evidence that the conditions utilized in the reference would indeed result in removal of residue on walls of the chamber as set forth by the Examiner.

Accordingly, claim 1 is not anticipated by McCullough and is allowable over this reference.

Claims 2-4, 6-7 and 9-15 are not anticipated by McCullough for at least the reason that they depend from allowable base claim 1.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCullough in view of Chen (U.S. Patent No. 5,356,479). The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claim 5 is allowable over the combination of McCullough and Chen for at least the reason that the references, individual or in combination, fail to disclose or suggest each and every element in the claim.

As indicated above, McCullough fails to disclose the claim 1 recited contacting residue material over at least one internal chamber surface with supercritical fluid where the contacting removes at least some of the residual material from over the at least one internal chamber surface. Nor does McCullough suggest this recited feature. Chen is relied upon as disclosing cleaning plasma chambers after processing a substrate. However, Chen does not contribute towards suggesting the claim 1 recited contacting residual material with supercritical fluid where the contacting removes at least some of the residue material from over at least one internal chamber surface. Independent claim 1 is therefore not rendered obvious by the combination of McCullough and Chen and is allowable over this reference. Claim 5 is allowable over the combination of McCullough and Chen for at least the reason that it depends from allowable base claim 1.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of McCullough and Biberger (U.S. Patent No. 7,060,422). Biberger is indicated as being relied upon as disclosing methods for supercritical processing of a work piece and increasing pressure to generate gas into supercritical fluid. However, this teaching does not contribute towards suggesting the claim 1 recited contacting residue material over at least one internal chamber surface with supercritical fluid where the contacting removes at least some of the residue material from over the at least one internal chamber surface. Independent claim 1 is therefore not rendered obvious by a combination of McCullough and Biberger and is allowable over these references. Dependent claim 8 is allowable over McCullough as combined with Biberger for at least the reason that it depends from allowable base claim 1.

For the reasons discussed above, claims 1-15 are allowable. Accordingly, applicant respectfully requests formal allowance of such claims in the Examiner's next action.

Respectfully submitted,

Dated: July 6, 2007

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